

(2) Marked-up copy of the claims, showing the amendments made herein;
(3) Copy of the Declaration of Andrew A. Potter, Ph.D., submitted in USSN 08/658,277, now issued as U.S. Patent No. 5,863,543, the parent of the present divisional application.

I. AMENDMENTS

In the Claims:

Please amend claims 1-6 as follows:

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1. (Three times amended) An isolated nucleic acid molecule consisting of a sequence selected from the group consisting of: (a) a sequence encoding an immunogenic polypeptide having at least 90% sequence identity to the contiguous amino acid sequence shown at positions 1 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2); and (b) a sequence encoding an immunogenic polypeptide having at least 90% sequence identity to the contiguous amino acid sequence shown at positions 29 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2).

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2. (Four times amended) The nucleic acid molecule of claim 1 wherein said nucleic acid molecule encodes an immunogenic polypeptide having a sequence with at least 90% sequence identity to the contiguous amino acid sequence shown at positions 1 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2).

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3. (Three times amended) The nucleic acid molecule of claim 1 wherein said nucleic acid molecule encodes an immunogenic polypeptide having a sequence with at least 90% sequence identity to the contiguous amino acid sequence shown at positions 29 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2).

Sub P3
~~4. (Three times amended) A recombinant vector comprising:~~

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~~(a) a nucleic acid molecule encoding an immunogenic polypeptide comprising a sequence selected from the group consisting of: (i) a sequence having at least 90% sequence identity to the contiguous amino acid sequence shown at positions 1 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2); and (ii) a sequence having at least 90% sequence identity to the contiguous amino acid sequence shown at positions 29 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2); and~~

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~~(b) control elements that are operably linked to said nucleic acid molecule whereby said coding sequence can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.~~

Sub P4
~~5. (Three times amended) A recombinant vector according to claim 4, wherein said nucleic acid molecule encodes an immunogenic polypeptide which comprises a sequence having at least 90% sequence identity to the contiguous amino acid sequence shown at positions 1 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2).~~

Sub P5
~~6. (Three times amended) A recombinant vector according to claim 4, wherein said nucleic acid molecule encodes an immunogenic polypeptide which comprises a sequence having at least 90% sequence identity to the contiguous amino acid sequence shown at positions 29 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2).~~

Please add the following new claims:

Sub P5
~~44. (New) An isolated nucleic acid molecule comprising a sequence selected from the group consisting of: (a) a sequence encoding the contiguous amino acid sequence shown at positions 1 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2); and (b) a sequence encoding the contiguous amino acid sequence shown at positions 29 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2).~~

45. (New) The nucleic acid molecule of claim 44 wherein said sequence encodes the contiguous amino acid sequence shown at positions 1 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2).

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46. (New) The nucleic acid molecule of claim 44 wherein said sequence encodes the contiguous amino acid sequence shown at positions 29 through 256, inclusive, of Figures 4A-4C (SEQ ID NO:2).

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47. (New) A recombinant vector comprising:
(a) a nucleic acid molecule according to claim 44; and
(b) control elements that are operably linked to said nucleic acid molecule whereby said coding sequence can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

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48. (New) A recombinant vector comprising:
(a) a nucleic acid molecule according to claim 45; and
(b) control elements that are operably linked to said nucleic acid molecule whereby said coding sequence can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

49. (New) A recombinant vector comprising:
(a) a nucleic acid molecule according to claim 46; and
(b) control elements that are operably linked to said nucleic acid molecule whereby said coding sequence can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

50. (New) A host cell transformed with the recombinant vector of claim 47.

51. (New) A host cell transformed with the recombinant vector of claim 48.

52. (New) A host cell transformed with the recombinant vector of claim 49.

53. (New) A method of producing a recombinant CAMP factor comprising:
(a) providing a population of host cells according to claim 50; and
(b) culturing said population of cells under conditions whereby the CAMP factor encoded by the coding sequence present in said recombinant vector is expressed.

54. (New) A method of producing a recombinant CAMP factor comprising:
(a) providing a population of host cells according to claim 51; and
(b) culturing said population of cells under conditions whereby the CAMP factor encoded by the coding sequence present in said recombinant vector is expressed.

55. (New) A method of producing a recombinant CAMP factor comprising:
(a) providing a population of host cells according to claim 52; and
(b) culturing said population of cells under conditions whereby the CAMP factor encoded by the coding sequence present in said recombinant vector is expressed.--

II. REMARKS

Claims 1-12 are presently pending in this application and stand variously rejected under 35 U.S.C. §§ 101, 112, 102 and 103. These rejections are believed to be overcome by the above amendments and are otherwise traversed for reasons discussed below.